

code pattern information is read and the size of the body can be measured at the same time, so that an apparatus having a simple constitution for reading the size of a body and code pattern information can be provided.

5 As mentioned above, according to the present invention, the length of a detection object can be detected precisely.

What Is Claimed Is

10 1. An apparatus for automatically detecting a size of a detection object comprising:

a detection object whose size is to be detected;
a background panel which is arranged behind said detection object, said background panel having a mark as a standard and being longer than said detection object; and

15 a controller for optically scanning said detection object and said background panel from forth, and automatically detecting the size of said detection object on the basis of a signal obtained by electrically converting reflected light.

20 2. An apparatus for automatically detecting a size of a detection object comprising:

a detection object whose size is to be detected;
a background panel arranged behind said detection object, said background panel having a mark as a standard and a code pattern arranged along a length direction of said detection object, and being longer than said detection object; and

a controller for optically scanning said detection object and said background panel from forth and automatically detecting the size of said detection object on the basis of a signal obtained by electrically converting reflected light.

5 3. An automatic analyzer comprising:

an analytical unit for analyzing components of a sample which is an analytical object using a reagent, a reagent container for storing said reagent;

10 a sampler unit for holding said sample and executing a pouring operation so as to transfer said sample of a volume necessary to analysis to said analytical unit; a controller for controlling said analytical unit and said sampler unit; and

15 a power unit for supplying power necessary for operations of said controller, said analytical unit, and said sampler to said respective units,

wherein an optical information reader for reading contents of a code pattern label attached to a container for storing said sample for an object of discrimination is installed, and a background panel having a mark as a standard is installed behind said container, and means for optically scanning said background panel and said code pattern by said optical information reader, measuring a height of said container with said code pattern attached on the basis of a signal obtained by electrically converting reflected light,

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and transmitting a result indicating said measured height of said container and discrimination information of said code pattern to said controller is provided.

4. An automatic analyzer comprising:

5 an analytical unit for analyzing components of a sample which is an analytical object using a reagent;

10 a reagent container for storing said reagent, a sampler unit for holding said sample and executing a pouring operation so as to transfer said sample of a volume necessary to analysis to said analytical unit, a controller composed of an electron circuit including an MPU, a memory, an I/O unit, and a sequencer for processing information and a storage unit for controlling said analytical unit and said sampler unit, and a power unit for supplying power necessary for operations of said controller, said analytical unit, and said sampler to said respective units;

15 wherein an optical information reader for reading contents of a code pattern label attached to a container for storing said sample for an object of discrimination is installed, and a background panel having a mark as a standard is installed behind said container, and means for optically scanning said background panel and said code pattern by said optical information reader, measuring a height of said container with said code pattern attached on the basis of a signal obtained by electrically converting reflected light,

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and transmitting a result indicating said measured height of said container and discrimination information of said code pattern to said controller is provided.

5. An apparatus for automatically detecting a size of a detection object according to Claim 2, wherein said background panel includes an auxiliary symbol in a neighborhood of said mark as a standard.

6. An automatic analyzer according to Claim 3, wherein said background panel includes an auxiliary symbol in a neighborhood of said mark as a standard.

10 7. An automatic analyzer according to Claim 4, wherein said background panel includes an auxiliary symbol in a neighborhood of said mark as a standard.